

Claims 16 through 19 were rejected as unpatentable under 35 U.S.C. Section § 103 over Ashby in view of Zhang further in view of Yin.

Claims 26 were objected under 35 U.S.C. as unpatentable over Ashby in view of Zhang further in view of Tsunekane (US Patent No. 6,822,985). Claim 21 was objected to a being dependent upon a rejected claim but would be allowable if written in independent form.

The Examiner's indication that claims 22 through 24 are allowable is gratefully acknowledged.

Reconsideration of the rejection is respectfully requested. As set forth in claim 1, the invention relates to a side pumped laser which includes a cavity formed between a first and second reflective surface. The cavity has an optical axis and one or more laser rods located within the cavity along the optical axis. A plurality of diode bars are provided having radiation outlets in optical communication with each laser rod for supplying electromagnetic radiation to the rod. The electromagnetic radiation propagates through the lasing rod on a plurality of substantially non-intersecting paths. These paths traverse the laser rods substantially perpendicular to the direction of propagation of energy in the laser cavity. In claim 9 according to Applicant's invention, the diode bars are oriented symmetrically around the periphery of the lasing rod.

The Office Action on page 3 states that the radiation propagates through lasing medium of Ashby on substantially nonintersecting paths. This characterization is incorrect. The Ashby '649 patent in Fig. 1 discloses two (2) laser diode arrays 12 which provide electromagnetic radiation in two (2) directions through the solid state medium 14. In Fig. 1, the propagation direction of the pumping beam paths do indeed intersect. Fig. 1 referred to by the Examiner has the legend "pump beams" in the middle of Fig. 1. Nothing in the description which would explain why the pump beams would not intersect in the interior of the lasing medium. The only reason the drawing does not clearly show the intersection is the inclusion of the legend. Clearly, they would. Thus,

Claim 9 is allowable.  
Diode bars symmetrically around the pump beam

the Ashby patent does not disclose or suggest Applicant's invention. To the contrary, it merely shows what has been set forth as prior art namely diode arrays which produces an electromagnetic radiation on intersecting paths. It should be noted that the Ashby reference discloses a monolithically integrated solid state laser. Specifically, a semiconductor laser on a chip. It is quite different than the type of laser disclosed in Applicant's invention which is one involving a lasing rod set forth in claim 3 a cylindrical lasing rod.

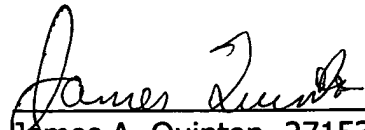
Zhang primarily discloses a slab laser although a laser rod is mentioned in Zhang in claim 9. Applicant concedes that laser rods are known in the art. However, it would not be obvious to substitute a laser rod for the chip laser material of Ashby. Moreover, since Ashby does not disclose nonintersecting side pumping paths, the combination of Ashby and Zhang does not show or suggest Applicant's inventions.

In addition, there seems to be some confusion in the Office Action about the term "diode bars". "Diode bars" would be the equivalent to the laser diode arrays in Ashby. In Ashby, there are only two (2) diode arrays. Thus, there is no suggestion in Ashby that there be the use of a plurality of diode bars consisting of six (6) or more diode bars as set forth in claim 3.

As to the remaining grounds of rejections, since Ashby is deficient in that it does not show or suggest providing a plurality of diode bars which provide electromagnetic radiation through the lasing rod on a plurality of substantially non-intersecting paths. The paths of Ashby clearly intersect as is shown in Fig. 1. Nothing in Zhang, Early or Yin remedy the deficiencies of Ashby. As a result, Applicant's invention is not shown or suggested by the art of record.

It is respectfully submitted that the application is in condition for allowance and an early notice to that effect is earnestly solicited.

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